REMARKS

Applicants appreciate the courtesy extended by the Examiner during the telephone conference on October 19, 2004. The Examiner indicated that claims 54-55, and 74 should be amended to clarify the junction formed by the recited top and bottom injection layers. Also, the Examiner indicated that withdrawn species claims 56-57, and 83-85 could be re-instated and found allowable upon a finding of allowability for the genus claims in the application in accordance with 37 C.F.R. § 1.141 and MPEP 809.02(b).

The Office action of August 6, 2004 has been received and its contents carefully noted.

Claims 54-85 are pending in the application, with claims 56-57, and 83-85 being withdrawn.

It is noted that Claims 54-55, and 58-82 stand rejected in accordance with 35 U.S.C. § 112, second paragraph. Applicants submit that any allegedly unclear claim language does not rise to the level of being properly rejected under § 112, second paragraph. Indeed, the Examiner's comments reflect a clear understanding of the claims. Thus, at best, any potentially unclear claim language only rises to the level of being objectionable.

Furthermore, claim 74 does not even include any of the objected language from Claims 54-55 referring to a top injector

layer, a bottom injector layer, and a material between. Therefore, the objected language should not be considered indefinite since the recited P-N junction is clearly formed by the recited layers of the claimed interband tunnel diode. While not agreeing with this rejection, Claims 54-55 have been amended to alleviate the concerns of the Examiner without substantially altering the scope of these claims. Therefore, Applicants respectfully request reconsideration and withdrawal of the 112, second paragraph rejection.

Also, as confirmed by the Examiner, withdrawn species claims 56-57, and 83-85 may be re-instated and found allowable upon a finding of allowability for the genus claims in the application in accordance with 37 C.F.R. § 1.141 and MPEP 809.02(b).

Conclusion

In view of the amendments and remarks submitted above, it is respectfully submitted that all of the remaining claims are allowable and a Notice of Allowance is earnestly solicited.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayments to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

The Examiner is invited to contact the undersigned at (703) 205-8000 to discuss the application.

Respectfully submitted,

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